AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of inhibiting proliferation of a microbial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the skin injury or the surface lesion with an antimicrobial composition, wherein the antimicrobial composition comprises a pharmaceutically acceptable antimicrobial agent, a pharmaceutically acceptable chelating agent, a pharmaceutically acceptable pH buffering agent, and a pharmaceutically acceptable carrier, but not having TGF-β, and wherein the concentrations of the chelating agent and the antimicrobial agent are selected to synergistically inhibit proliferation of the microbial population of the skin injury or the surface lesion of the human or animal patient.

2. (Previously Amended) The method of Claim 1, further comprising the steps of:

(a) identifying the microbial population;

(b) identifying an antibiotic capable of inhibiting proliferation of the microbial population;

(c) determining the minimal inhibitory concentration (MIC) and the fractional inhibitory concentration (FIC) values for the antibiotic and the chelating agent; and

(d) selecting concentrations of the antibiotic and the chelating agent of the antimicrobial composition to synergistically inhibit proliferation of the microbial population.

3. (Original) The method of Claim 1, wherein the pharmaceutically acceptable chelating agent is selected from the group consisting of ethylenediamenetetracetic acid (EDTA), triethylene

tetramine dihydrochloride (TRIEN), ethylene glycol-bis (beta-aminoethyl ether)–N, N, N', N'–tetracetic acid (EGTA), diethylenetriamin-pentaacetic acid (DPTA), triethylenetetramine hexaacetic acid (TTG), deferoxamine, Dimercaprol, edetate calcium disodium, zinc citrate, penicilamine succimer and Editronate.

4. (Original) The method of Claim 1, wherein the pharmaceutically acceptable chelating agent is further selected from the group consisting of ethylenediamenetetracetic acid (EDTA), triethylene tetramine dihydrochloride (TRIEN), ethylene glycol-bis (beta-aminoethyl ether)–N, N, N', N'–tetracetic acid (EGTA), diethylenetriamin-pentaacetic acid (DPTA), and triethylenetetramine hexaacetic acid (TTG).

5. (Original) The method of Claim 1, wherein the pharmaceutically acceptable chelating agent is ethylenediamenetetracetic acid (EDTA).

6. (Original) The method of Claim 1, wherein the pharmaceutically acceptable chelating agent is triethylene tetramine dihydrochloride (TRIEN).

7. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is an antibiotic selected from the group consisting of a β-lactam, an aminoglycoside, a vancomycin, a bacitracin, a macrolide, an erythromycin, a lincosamide, a chloramphenicol, a tetracycline, a gentamicin, an amphotericin, a cefazolin, a clindamycin, a mupirocin, a nalidixic acid, a sulfonamide and trimethoprim, a streptomycin, a rifampicin, a metronidazole, a quinolone, a novobiocin, a polymixin and a Gramicidin.

8. (Original) The method of Claim 7 wherein the pharmaceutically acceptable antimicrobial agent is further selected from the group consisting of a β-lactam, an aminoglycoside, a vancomycin, a chloramphenicol, an erythromycin, a tetracycline, gentamicin, nalidixic acid and a streptomycin.

9. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is oxytetracycline.

10. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is amikacin.

11. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is neomycin.

12. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is biologically active against a Gram-negative bacterial species.

13. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is biologically active against a Gram-positive bacterial species.

14. (Original) The method of Claim 1, wherein the microbial population is a bacterial infection comprising at least one Gram-negative bacterial genus selected from the group consisting of *Aeromonas, Pseudomonas, Escherichia, Enterococcus, Yersinia, Vibrio, Flexibacter, Nocardia, Flavobacterium, Edwardsiella* and *Cytophagia.*

15. (Original) The method of Claim 1, wherein the microbial population is a bacterial infection comprising at least one Gram-positive bacterial genus selected from the group consisting of *Bacillus, Staphylococcus, Streptococcus, and Mycobacterium.*

16. (Original) The method of Claim 1, wherein the pharmaceutically acceptable pH buffering agent comprises Tris (hydroxymethyl) aminomethane (TRIZMA Base).

17. (Cancelled).

18. (Original) The method of Claim 1, wherein the skin injury is a burn.

19. (Original) The method of Claim 1, wherein the skin injury is an abrasion.

20. (Original) The method of Claim 1, wherein the skin injury is an ulcer.

21. (Original) The method of Claim 1, wherein the surface lesion is a lesion of the oral mucosa of a human or animal patient.

22. (Original) The method of Claim 1, wherein the antimicrobial composition is a mouthwash for inhibiting the proliferation of a microbial population of the oral cavity of a human or animal.

23. – 53. (Cancelled).

54. (Previously Added) The method of Claim 1, wherein the antimicrobial composition consists essentially of the pharmaceutically acceptable antimicrobial agent, the pharmaceutically acceptable chelating agent, the pharmaceutically acceptable pH buffering agent, and the pharmaceutically acceptable carrier.

55. (Currently Amended) A method of inhibiting proliferation of a microbial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the skin injury or the surface lesion with an antimicrobial composition, wherein the antimicrobial composition consists essentially of a pharmaceutically acceptable antimicrobial agent, a pharmaceutically acceptable chelating agent, a pharmaceutically acceptable pH buffering agent, vitamin E and a pharmaceutically acceptable carrier, but not having TGF-β, and wherein the concentrations of the chelating agent and the antimicrobial agent are selected to synergistically inhibit proliferation of the microbial population of the skin injury or the surface lesion of the human or animal patient.